

WHAT IS CLAIMED IS:

1. A three-dimension display apparatus, comprising:
  - a liquid crystal display;
  - a first polarizer on the rear surface of the liquid crystal display;
  - a second polarizer on the front surface of the liquid crystal display;
  - a liquid crystal polymer on the second polarizer including a chiral dopant and liquid crystal molecules, wherein the liquid crystal polymer is divided into first regions through which incident light is not polarized and second regions through which the incident light is polarized at approximately 90 degrees;
  - a third polarizer on the liquid crystal polymer for selectively transmitting the incident light from the liquid crystal polymer; and
  - a light source below the first polarizer.
2. The apparatus according to claim 1, wherein the liquid crystal molecules in the first regions are arranged parallel to an optic axis of the second polarizer.
3. The apparatus according to claim 2, wherein the liquid crystal molecules in the second regions are twisted at approximately 90 degrees to the axis of the second polarizer.
4. The apparatus according to claim 1, wherein the third polarizer transmits the light from the first regions.
5. The apparatus according to claim 1, wherein the third polarizer transmits the

light from the second regions.

6. The apparatus according to claim 1, wherein the liquid crystal display shows two-dimension images.

7. The apparatus according to claim 1, wherein the liquid crystal polymer has at least one of e-mode and o-mode.

8. A method of fabricating a three-dimension display apparatus, comprising:  
providing a liquid crystal display;  
forming a first polarizer on the rear surface of the liquid crystal display;  
forming a second polarizer on the front surface of the liquid crystal display;  
forming a liquid crystal polymer on the second polarizer, wherein the liquid crystal polymer includes a chiral dopant, liquid crystal molecules, and is divided into first regions through which incident light is not polarized and second regions through which the incident light is polarized at approximately 90 degrees;  
forming a third polarizer on the liquid crystal polymer; and  
arranging a light source below the first polarizer.

9. The method according to claim 8, wherein the liquid crystal display includes a first substrate, a second substrate on which pixels and switching elements are formed, and a liquid crystal layer between the first and second substrates.

10. The method according to claim 8, wherein the liquid crystal molecules in the first regions are arranged parallel to an optic axis of the second polarizer.
11. The method according to claim 10, wherein the liquid crystal molecules in the second regions are twisted at approximately 90 degrees to the axis of the second polarizer.
12. The method according to claim 8, wherein the third polarizer transmits the light from the first regions.
13. The method according to claim 8, wherein the third polarizer transmits the light from the second regions.
14. The method according to claim 8, wherein the liquid crystal display shows two-dimension images.
15. The method according to claim 8, wherein the liquid crystal polymer has at least one of e-mode and o-mode.
16. A method of forming a liquid crystal polymer for use in a parallax barrier and a beam-splitter, comprising;  
forming liquid crystals including chiral dopant on a substrate;  
dividing the substrate into first regions and second regions;

aligning a mask having light-transmitting portions that corresponds to the first regions and light-shielding portions that corresponds to the second portions;

photoirradiating the liquid crystals including the chiral dopant so as to make the first regions have a first optic axis and to make the second regions have a second optic axis; and

forming a polarizer on the liquid crystals.

17. The method according to claim 16, wherein the first optic axis is parallel to a polarizing axis of the polarizer.

18. The method according to claim 16, wherein the second optic axis is at 90 degrees to the polarizing axis of the polarizer.